

# **Exhibit B**

**IN THE UNITED STATES DISTRICT COURT  
FOR THE EASTERN DISTRICT OF VIRGINIA  
Alexandria Division**

UNITED STATES, et al.,	)	
	)	
Plaintiffs,	)	
v.	)	No. 1:23-cv-00108-LMB-JFA
	)	
GOOGLE LLC,	)	CONTAINS HIGHLY CONFIDENTIAL
	)	INFORMATION
Defendant.	)	

**DECLARATION OF DEVON P. MAHONEY**

I, Devon P. Mahoney, hereby declare as follows:

1. I provide the following declaration on behalf of the United States in *United States et al. v. Google LLC*, No. 1:23-cv-00108-LMB-JFA, pending in the United States District Court for the Eastern District of Virginia (“this litigation”).

2. The contents of this declaration are true and correct to the best of my knowledge, information, and belief, and are based on my personal knowledge, my review of relevant records, and information provided to me by counsel of record to the United States in this litigation. If called upon as a witness in this action, I could and would testify competently thereto.

**A. Investigatory Communications with Non-Parties**

3. Prior to the filing of this case, staff of the Antitrust Division of the United States Department of Justice undertook an over-three-year investigation of Google’s conduct. During that investigation, the Antitrust Division staff communicated with over 300 non-party industry participants. These non-party industry participants are listed in the United States’ response to Google’s Interrogatory No. 3. Through these communications, Antitrust Division staff obtained information about the ad tech industry, each company’s business and product offerings, and Google’s business, product offerings, and conduct. Antitrust Division staff also obtained data

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response “Transaction Type = Open Auction” indicates that in the “Transaction Type” column, “Open Auction” was included and all other options were excluded.

29. In its response to Google’s Interrogatory No. 14, the United States provided three tables containing total FAA media spend by FAA for open web display advertising purchases underlying the United States’ claim for damages during the damages period, inclusive of all platform fees, for (1) AdX, and (2) DV360 and Google Ads (a) via third-party exchanges and (b) via other inventory sources. To gather this information, the United States used data produced by Google on July 7, 2023, in response to Plaintiffs’ Request for Production No. 60, and filtered the data using the variables “Inventory\_Source” = AdX and “Transaction\_Type” = Open Auction.

30. In its response to Google’s Interrogatory No. 9, the United States provided (1) a preliminary range for computation of damages; and (2) a description of the computation process by which the range was generated. The United States is seeking damages for purchases of ad tech services via AdX, DV360, and Google Ads. The term “ad tech services,” as used in the United States’ responses to Google’s interrogatories may include more tools than just AdX, DV360, and Google Ads, including those described in paragraphs 3 and 4 of the United States’ amended complaint. In its Amended Complaint, the United States used the term “ad tech” but not the term “ad tech services.” As used in the Amended Complaint, “ad tech” refers to the technology described in paragraphs 3-4 and 42-65 of the Amended Complaint. In its interrogatory responses, the United States used the term “ad tech services” to refer to all the services provided by Google’s DV360, Google Ads, and AdX products, for which Google charges FAAs by retaining a portion of FAA’s media spend. Both fact and expert discovery are still ongoing in this case. The United States responded to Google’s interrogatories based on the

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information available at the time. Similarly, the information in this declaration is the information known to the United States at this time. The United States is continuing to analyze information obtained in discovery and expects its computation of damages to change.

31. To identify purchases that flow into Google's AdX ad exchange, the United States first identified FAAs in the data produced by Google on July 7, 2023 in response to Plaintiffs' Request for Production No. 60 using the variables "advertiser\_parent\_name," "advertiser\_company\_name," "advertiser\_division\_name" for Google Ads, "DV360\_advertiser" and "DV360\_partner" for DV360, and in data produced by The Trade Desk using the variable "AdvertiserName." The United States then identified ad agencies in the data, using the variables "third\_party\_parent\_name," "third\_party\_company\_name," "third\_party\_division\_name," and "third\_party\_identifier" for Google Ads, "DV360\_partner\_id" and "DV360\_advertiser\_id" for DV360, and "PartnerName" for The Trade Desk. Through this filtering, the United States was able to identify FAA purchases through Google Ads, DV360 and The Trade Desk.

32. To provide the preliminary range for computation of damages, the United States calculated AdX's take rate for traffic coming from DV360, Google Ads, and other DSPs, calculated what the AdX take rate would be but for Google's anticompetitive actions (the But-For Take), and based its preliminary damage calculation by subtracting the But-For-Take rate from the actual take rate. The United States determined the actual AdX take by reviewing relevant Google documents setting out the actual take rate charged by Google on AdX and by analyzing data produced by Google. The United States calculated a range of But-For-Take rates using a variety of data sources and under various assumptions, including using data produced both by Google and non-parties, Google documents, and testimony of Google witnesses. The range of But-For-Take rates and the United States' preliminary range of computation of damages

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are based on all of Google's violations of the Sherman Act alleged in the United States' complaint. The specific range for the AdX But-For-Take rate is the subject of ongoing discovery review and expert analysis, and has not yet been determined.

33. Exhibit 2 to this declaration describes in detail steps use to calculate the United States's preliminary range of computation of damages in its supplemental response to Interrogatory No. 9. The United States' preliminary range of computation of damages in its supplemental response to Interrogatory No. 9 is a range because it is based on varying assumptions about what the AdX But-For-Take rate would be and the share of the overcharge that would be attributed to advertisers or publishers. The portion of the overcharge that would be attributed to publishers, versus advertisers, is the subject of ongoing discovery review and expert analysis and has not yet been determined.

34. In addition to paying supra-competitive fees resulting from Google's conduct, the United States believes that as a result of Google's anticompetitive behavior, FAAs' digital advertising campaigns were not as effective as they otherwise would have been, resulting in their incurring additional expenses. The quantification of these additional expenses is the subject of ongoing discovery review and expert analysis and has not yet been determined.

35. The FAAs' ad agencies are agents of the FAAs because they purchase digital ads on behalf of FAAs at the FAAs' direction, pursuant to parameters that are set out in contracts, task orders, and other related documents. The FAAs' practice is for the FAAs to provide payments to their ad agencies as reimbursement for purchases made on the FAAs' behalf pursuant to their contractual relationship. Based on its investigation to date, the United States believes that seven FAAs (United States Air Force, United States Army, United States Bureau of the Census, Center for Medicare and Medicaid Services, United States Navy, National Highway

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Traffic Safety Administration, and United States Department of Veteran's Affairs) pay for their purchases of digital ads from the United States Treasury. Because the United States Postal Service is not funded via taxpayer dollars, the United States believes that the United States Postal Service pays for its purchases of digital ads from bank accounts owned by the United States Postal Service.

36. The information provided herein is based on the documents and information currently available to the United States. Because the United States is still receiving and analyzing discovery on the topics of this declaration, the United States' analysis of these topics may change.

I declare under penalty of perjury that the foregoing is true and correct.

Executed in Woodbridge, Virginia on January 19, 2024.

A handwritten signature in black ink, appearing to read "Devon P. Mahoney", is written above a solid horizontal line.

Devon P. Mahoney

## Exhibit 2

### **Summary of Preliminary Damages Range**

The United States first identifies three components for its damages calculations: (1) actual relevant spending on behalf of Federal Agency Advertisers (“FAAs”) on Google Ads-to-AdX, Google Ads-to-AdSense, DV360-to-AdX, and The Trade Desk-to-AdX; (2) actual take rates for relevant transactions taking place on Google Ads-to-AdX, Google Ads-to-AdSense, DV360-to-AdX, and the Trade Desk-to-AdX; (3) but-for take rates for AdX and AdSense inventory on relevant transactions. Then, the United States multiplies the relevant spending by the difference between actual and but-for take rates to compute its range of damages estimates. The steps to derive the damages range and the components used to calculate it are described below.

#### **I. STEPS TO DERIVE GOOGLE ADS-TO-ADX AND GOOGLE ADS-TO-ADSENSE SPEND AND ACTUAL TAKE RATES<sup>1</sup>**

1. Filter to relevant ads<sup>2</sup> purchased on Google Ads on behalf of the FAAs<sup>3</sup> by contracted ad agencies.<sup>4</sup>

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<sup>1</sup> XBridge Google Ads data (GOOG-AT-MDL-DATA-000486626-8277). Applies agency identifiers from XP Daily data (GOOG-AT-MDL-DATA-000558890-9276).

<sup>2</sup> U.S. open web display ads purchased via open auction between January 2019 and January 2023. *See* November 30 Letter, United States’ Response to Google’s List of Steps for I.A, pp. 1-2. “Open web display” advertising is understood to include display ads that are placed on “websites whose inventory is sold through ad tech intermediaries that offer inventory from multiple websites.” Open web display advertising does not include ads placed on properties that sell inventory directly to advertisers (*e.g.*, social media companies like Facebook), video ads displayed in connection to video streaming, mobile app ads. *See* Amended Complaint, United States of America, State of Arizona, Commonwealth of Virginia, State of California, State of Colorado, State of Connecticut, State of Illinois, State of Michigan, State of Minnesota, State of Nebraska, State of New Hampshire, State of New Jersey, State of New York, State of North Carolina, State of Rhode Island, State of Tennessee, State of Washington, State of West Virginia v. Google LLC, Case 1:23-cv-00108, April 18, 2023 (“Amended Complaint”), pp. 16-17, footnote 4.

<sup>3</sup> November 15 Letter, United States’ Response to Question 2, Appendix B-Supplemented.

<sup>4</sup> November 15 Letter, United States Response to Question 4, p. 6; November 30 Letter, United States’ Response to Google’s Follow-Up Question for I.A, p. 3.



2. The relevant spending from Google Ads-to-AdX transactions that contributes to the United States' estimated damages range<sup>5</sup> is calculated as  $0.99 \times \text{sum of buy-side gross revenue}^6$  on AdX transactions, where 0.99 is applied as an adjustment to exclude "invalid traffic."<sup>7</sup>
3. The actual Google Ads-to-AdX sell-side take rate is calculated as  $[\text{sum of total net revenue}^8 - (0.14 \times \text{sum of buy-side gross revenue})] / [(1 - 0.14) \times 0.99 \times \text{sum of buy-side gross revenue}]$  on Google Ads-to-AdX transactions, where 0.14 (or 14 percent) is assumed to be the buy-side-only take rate.<sup>9</sup>
4. The relevant spending from Google Ads-to-AdSense transactions that contributes to the United States' estimated damages range is calculated as the sum of buy-side gross revenue on Google Ads-to-AdSense transactions.<sup>10</sup>
5. The actual Google Ads-to-AdSense total take rate is calculated as  $(\text{sum of net revenue}) / (\text{sum of gross revenue})$  on Google Ads-to-AdSense transactions and is equal to 32.1216 percent.<sup>11</sup>
6. The actual Google Ads-to-AdSense sell-side take rate is assumed to be 20.1216 percent.<sup>12</sup>

## II. STEPS TO DERIVE DV360-TO-ADX SPEND AND ACTUAL TAKE RATE<sup>13</sup>

1. Filter to relevant ads<sup>14</sup> purchased on DV360 through AdX on behalf of the FAAs by contracted ad agencies.<sup>15</sup>
2. The relevant spending from DV360-to-AdX transactions net of DV360 buy-side fees that contributes to the United States' estimated damages range is calculated as  $0.99 \times (\text{sum of sell-side gross revenue}^{16})$  on AdX transactions, where 0.99 is applied as an adjustment to exclude "invalid traffic."<sup>17</sup>

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<sup>5</sup> November 15 Letter, United States' Response to Question 1.a, p. 2.

<sup>6</sup> Buy-side gross revenue refers to revenue\_usd, understood as the payment received from advertisers.

<sup>7</sup> November 30 Letter, United States' Response to Google's List of Steps for I.A, pp. 1-2. 1 - 0.99 = 0.01 (or 1 percent) is assumed to be the proportion of revenue attributable to "invalid traffic."

<sup>8</sup> Total net revenue refers to net\_revenue\_usd, understood as the portion of the revenue that pays platform fees. In the case of transactions from Google Ads to AdX and Google Ads to AdSense, the net revenue is equal to the total fees paid to Google Ads and AdX and to Google Ads and AdSense, respectively.

<sup>9</sup> November 30 Letter, United States' Response to Google's List of Steps for I.A, pp. 1-2.

<sup>10</sup> November 30 Letter, United States' Response to Google's List of Steps for I.A, pp. 1-2.

<sup>11</sup> November 30 Letter, United States' Response to Google's List of Steps for III.B, p. 18.

<sup>12</sup> November 30 Letter, United States' Response to Google's List of Steps for I.A, pp. 1-2.

<sup>13</sup> XBridge DV360 data (GOOG-AT-MDL-DATA-000561263-1420). Applies agency identifiers from DV360 data (GOOG-AT-MDL-DATA-000488278-508815).

<sup>14</sup> U.S. open web display ads purchased via open auction between January 2019 and January 2023. See November 30 Letter, United States' Response to Google's List of Steps for I.B, pp. 3-4.

<sup>15</sup> November 15 Letter, United States' Response to Question 4, p. 6; November 30 Letter, United States' Response to Google's Follow-Up Question for I.B, pp. 4-6.

<sup>16</sup> Sell-side gross revenue refers to revenue\_usd when revenue\_type = "Media Cost," understood as the payment made to the exchange by the ad buying tool.

<sup>17</sup> November 30 Letter, United States' Response to Google's List of Steps for I.B, pp. 3-4.

3. The actual DV360-to-AdX sell-side take rate is calculated as (sum of sell-side net revenue<sup>18</sup>) /  $[0.99 \times (\text{sum of sell-side gross revenue})]$  on AdX transactions.<sup>19</sup>

### III. STEPS TO DERIVE THE TRADE DESK-TO-ADX SPEND<sup>20</sup>

1. Filter to relevant ads<sup>21</sup> purchased on The Trade Desk through Google's exchanges on behalf of the FAAs.<sup>22</sup>
2. The relevant spending from The Trade Desk-to-AdX transactions that contributes to the United States' estimated damages range is calculated as the sum of buy-side gross revenue.<sup>23</sup>

### IV. STEPS TO DERIVE ADX UPPER BOUND BUT-FOR TAKE RATE (13 PERCENT)<sup>24</sup>

1. Append together data from third parties Index Exchange, Magnite, OpenX, PubMatic, Rubicon, Sharethrough, Sovrn, Xandr, and Yieldmo.<sup>25</sup>
2. Filter to relevant ads.<sup>26</sup>
3. The AdX Upper Bound But-For Take Rate is calculated as the sum of net revenue / sum of gross revenue and rounded to the nearest percentage point, at 13 percent.<sup>27</sup>

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<sup>18</sup> Sell-side net revenue refers to net\_revenue\_usd when revenue\_type = "Media Cost," understood as the portion of the revenue paid to AdX in platform fees.

<sup>19</sup> November 30 Letter, United States' Response to Google's List of Steps for I.B, pp. 3-4.

<sup>20</sup> TTD\_DOJ-GOOG23-0012987; TTD\_DOJ-GOOG23-0033644.

<sup>21</sup> US open web display ads purchased via open auction between January 2019 and January 2023. November 30 Letter, United States' Response to Google's List of Steps for I.C, pp. 6-7.

<sup>22</sup> November 15 Letter, United States' Response to Question 2, Appendix B-Supplemented.

<sup>23</sup> Buy-side gross revenue refers to PartnerCostInUSD, understood as the payment received from advertisers.

<sup>24</sup> November 30 Letter, United States' Response to Google's List of Steps for III.A, pp. 17-18.

<sup>25</sup> "REG\_US DOJ\_CID\_Index Exchange Inc. Additional Response\_FINAL\_01Jun2021.xlsx", at sheet "G (ADDITIONAL REQUEST)" (Index Exchange); ".csv" files from the folder "section10\_dvplus\_20230706" (Magnite); "OPENX-DOJ-00010648.xlsx" (OpenX); "PUBMATIC\_DOJ-00013377.xlsx" (PubMatic); "RUBICON-00004480.xlsx", at sheet "B - Format Data (US)" (Rubicon); "SHARE002363 (HIGHLY CONFIDENTIAL).xlsx" (Sharethrough); "DoJ Civil Action Data Request Responses.xlsx", at sheet "Q10\_US\_inventory type" (Sovrn); "Exhibit 21.sellside\_Confidential.csv" (Xandr); "Exhibit 21. Supplemental-SellSideDateUpdate - Confidential.csv" (Xandr); "Yieldmo WSGR Request USA v Google- Privileged & Confidential 20230417", at sheets "Item 3 Summary" and "MobileApp" (Yieldmo). Verizon ("VZGGL-CID-AT-00000002.XLSX") excluded as net revenue is not available. December 13 Letter, United States' Response to Google's Follow-Up Question 3, p. 4.

<sup>26</sup> US open web display ads purchased via open auction between January 2019 and January 2023. November 30 Letter, United States' Response to Google's List of Steps for III.A, pp. 17-18.

<sup>27</sup> November 15 Letter, United States' Response to Question 1.a.ii, p. 3; November 30 Letter, United States' Response to Google's List of Steps for III.A, pp. 17-18; December 13 Letter, United States' Response to Google's Follow-Up Question 1, pp. 1-3.

**V. STEPS TO DERIVE ADX LOWER BOUND BUT-FOR TAKE RATE (2 PERCENT)**

1. The AdX Lower Bound But-For Take Rate is assumed to be 2 percent.<sup>28</sup>

**VI. STEPS TO DERIVE GOOGLE ADS-TO-ADSENSE UPPER BOUND TOTAL BUT-FOR TAKE RATE (25 PERCENT)<sup>29</sup>**

1. Calculate the actual Google Ads-to-AdSense buy-side take rate, 12 percent,<sup>30</sup> as the difference between the total Google Ads-to-AdSense take rate calculated in **I.5**, 32.1216 percent,<sup>31</sup> and the assumed Google Ads-to-AdSense sell-side take rate, 20.1216 percent.<sup>32</sup>
2. Add the AdX Upper Bound But-For Take Rate (13 percent) to the actual Google Ads-to-AdSense buy-side take rate and obtain 25 percent = 12 percent + 13 percent.<sup>33</sup>

**VII. STEPS TO DERIVE GOOGLE ADS-TO-ADSENSE LOWER BOUND TOTAL BUT-FOR TAKE RATE (14 PERCENT)<sup>34</sup>**

1. Add the AdX Lower Bound But-For Take Rate (2 percent) to the actual Google Ads-to-AdSense buy-side take rate (from **VI.1**) and obtain 14 percent = 12 percent + 2 percent.<sup>35</sup>

**VIII. STEPS TO DERIVE LOWER BOUND DAMAGES (\$3,232,140)<sup>36</sup>**

3. Multiply Google Ads-to-AdSense spending calculated in **I.4** by the difference between the actual total take rate calculated in **I.5** (32.1216 percent) and the but-for total take rate calculated in **VI.2** (25 percent) – *i.e.*, 7.1216 percent.<sup>37</sup>
4. Multiply the Google Ads-to-AdX valid spending calculated in **I.2** by (1 - 0.14) and then multiply the obtained product by the difference between the actual take rate calculated in **I.3** and the but-for take rate calculated in **IV.3** (13 percent).
5. Multiply DV360-to-AdX valid spending net of buy-side fees calculated in **II.2** by the difference between the actual take rate calculated in **II.3** and the but-for take rate calculated in **IV.3** (13 percent).
6. Multiply The Trade Desk-to-AdX revenue calculated in **III.2** by the difference between the actual take rate assumed to be 20 percent<sup>38</sup> and the but-for take rate calculated in **IV.3** (13 percent).
7. Sum the amounts calculated at **Steps VIII.1-4**.

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<sup>28</sup> GOOG-DOJ-32034896.

<sup>29</sup> November 30 Letter, United States' Response to Google's List of Steps for III.B, p. 18.

<sup>30</sup> November 30 Letter, United States' Response to Google's List of Steps for III.B, p. 18.

<sup>31</sup> November 30 Letter, United States' Response to Google's List of Steps for III.B, p. 18.

<sup>32</sup> November 30 Letter, United States' Response to Google's List of Steps for I.A, pp. 1-2.

<sup>33</sup> November 30 Letter, United States' Response to Google's List of Steps for III.B, p. 18.

<sup>34</sup> November 30 Letter, United States' Response to Google's List of Steps for III.C, p. 18.

<sup>35</sup> November 30 Letter, United States' Response to Google's List of Steps for III.C, p. 18.

<sup>36</sup> November 30 Letter, United States' Response to Google's List of Steps for III.D, p. 19.

<sup>37</sup> November 30 Letter, United States' Response to Google's Follow-Up Question for III.D, p. 19.

<sup>38</sup> November 30 Letter, United States' Response to Google's Follow-Up Question for III.D, p. 20.

**IX. STEPS TO DERIVE UPPER BOUND DAMAGES (\$9,253,606)<sup>39</sup>**

8. Multiply Google Ads-to-AdSense spending calculated in **I.4** by the difference between the actual total take rate calculated in **I.5** (32.1216 percent) and the but-for total take rate calculated in **VII.1** (14 percent): 18.1216 percent.<sup>40</sup>
9. Multiply the Google Ads-to-AdX valid spending calculated in **I.2** by (1 - 0.14) and then multiply the obtained product by the difference between the actual take rate calculated in **I.3** and the AdX Lower Bound But-For Take Rate (2 percent).<sup>41</sup>
10. Multiply DV360-to-AdX valid spending net of buy-side fees calculated in **II.2** by the difference between the actual take rate calculated in **II.3** and the AdX Lower Bound But-For Take Rate (2 percent).
11. Multiply The Trade Desk-to-AdX spending calculated in **III.2** by the difference between the actual take rate assumed to be 20 percent<sup>42</sup> and the AdX Lower Bound But-For Take Rate (2 percent).
12. Sum the amounts calculated at **Steps IX.1-4**.

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<sup>39</sup> November 30 Letter, United States' Response to Google's List of Steps for III.E, p. 20.

<sup>40</sup> November 30 Letter, United States' Response to Google's Follow-Up Question for III.E, p. 20.

<sup>41</sup> November 15 Letter, United States' Response to Question 1, p. 1-2; GOOG-DOJ-32034896.

<sup>42</sup> November 30 Letter, United States' Response to Google's Follow-Up Question for III.D, p. 20.